

ABSTRACT

A processing method and system for separating methane-rich and ethane-rich components from an LNG stream. The LNG stream is preheated against a distillation column overhead vapor stream and against an overhead vapor product prior to entering the column. The overhead vapor product is methane-rich. The LNG stream may further be preheated against the column bottoms and another heating medium. The method may also include compressing the methane-rich product, condensing it against the LNG stream, and pumping it. The system may also comprise third and fourth heat exchangers configured to preheat the LNG stream with the bottoms product and the heating medium. Further, the system may provide for compressing the overhead vapor product prior to its exchanging heat with the LNG stream and a pump for pumping condensed overhead vapor product. Additionally, the system generates all of the required reflux by cross exchanging the column overhead with the incoming LNG stream.